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*AW*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/574,261	05/19/00	LADWIG	P MAC-0015

IM22/1003  
EXXONMOBIL RESEARCH AND ENGINEERING COMP  
P O BOX 390  
FLORHAM PARK NJ 07932-0390

EXAMINER

PREISCH, N

ART UNIT	PAPER NUMBER
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1764

*5*

DATE MAILED: 10/03/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/574,261

Applicant(s)

LADWIG ET AL.

Examiner

Nadine Preisch

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) ✓
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## DETAILED ACTION

### *Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-9 and 11-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,069,287 in view of Johnson et al.(5,730,859) and Fusco et al.(5,665,949).

Both sets of claims are directed at the production of light olefins with overlapping components and process conditions.

A difference is noted between the claims of U.S. Patent No. 6,069,287. The present claims include limitations directed at pre-coking the catalyst whereas the claims of U.S. Patent No. 6,069,287 do not.

The references of Johnson et al.(5,730,859) and Fusco et al.(5,665,949) are cited for the general teaching that it is known that the amount of coke on a catalyst controls the activity/selectivity. See Johnson et al.(5,730,859), column 4, lines 59-67, column 5, lines 1-15 and column 6, lines 55-60 and Fusco et al.(5,665,949), column 1, lines 30-39.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made desiring to control the activity/selectivity of the catalyst employed in the claims of U.S. Patent No. 6,069,287 to utilize a partially coked catalyst because the references of Johnson et al.(5,730,859) and Fusco et al.(5,665,949) illustrate that coke on a catalyst is known to control the activity/selectivity.

Claims 10 and 19 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,069,287 in view of Johnson et al.(5,730,859) and Fusco et al.(5,665,949) in further view of Fenske et al.(3,893,905).

Another difference is noted between the present claims and the claims of U.S. Patent 6,069,287. The claims of U.S. Patent 6,069,287 do not include a polymerization step.

The reference of Fenske et al.(3,893,905) is cited to illustrate that propylene is a known starting feed for the production of polypropylene. See column 2, lines 52-56.

It would have been obvious to one of ordinary skill in the art at the time the invention was made desiring polypropylene to separate the C3 products of U.S. Patent No. 6,069,287 as a feed for the production of polypropylene because the reference of Fenske et al.(3,893,905) illustrates that propylene is a known starting feed for the production of polypropylene. It is within the level of ordinary skill in the art to utilize a starting feed produced by any known process.

***Double Patenting***

Claims 1-9 and 11-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 6,093,867 in view of Johnson et al.(5,730,859) and/or Fusco et al.(5,665,949) and Anderson et al.(4,927,526).

Both sets of claims are directed at the production of light olefins with overlapping components and process conditions.

Several differences are noted between the present claims and the claims of U.S. Patent No. 6,093,867. The present claims include limitations directed at pre-coking the catalyst whereas the claims of U.S. Patent No. 6,093,867 do not. In addition, applicants' present claims do not include a catalyst regeneration step.

The references of Johnson et al.(5,730,859) and Fusco et al.(5,665,949)are cited for the general teaching that it is known that the amount of coke on a catalyst controls the activity/selectivity. See Johnson et al.(5,730,859), column 4, lines 59-67, column 5, lines 1-15 and column 6, lines 55-60 and Fusco et al.(5,665,949), column 1, lines 30-39.

The reference of Anderson et al.(4,927,526) is cited to illustrate that catalyst regeneration in the presence of oxygen are conventional in the art. See column 17, lines 19-35 and column 18, lines 1-5.

It would have been obvious to one of ordinary skill in the art at the time the invention was made desiring to control the activity/selectivity of the catalyst employed in the claims of U.S. Patent No. 6,093,867 to utilize a partially coked catalyst because the references of Johnson et al.(5,730,859) and Fusco et al.(5,665,949) illustrate that coke on a catalyst is known to control the activity/selectivity.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the present claims to include a regeneration step because the reference of Anderson et al.(4,927,526) illustrates that such regeneration steps are conventional in the art.

Claims 10 and 19 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,093,867 in view of Johnson et al.(5,730,859) and/or Fusco et al.(5,665,949) and Anderson et al.(4,927,526) in further view of Fenske et al.(3,893,905).

It would have been obvious to one of ordinary skill in the art at the time the invention was made desiring polypropylene to separate the C3 products of U.S. Patent No. 6,093,867 as a feed for the production of polypropylene because the reference of Fenske et al.(3,893,905) illustrates that propylene is a known starting feed for the production of polypropylene. It is within the level of ordinary skill in the art to utilize a starting feed produced by any known process.

### ***Double Patenting***

Claims 1-9 and 11-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,258,990 in view of Johnson et al.(5,730,859) and/or Fusco et al.(5,665,949) and Dean et al.(Re. 33,728).

Both sets of claims are directed at the production of light olefins with overlapping components and process conditions.

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Several differences are noted between the present claims and the claims of U.S. Patent No. 6,258,990. The present claims include the use of a pre-coked catalyst whereas the claims of U.S. Patent No. 6,258,990 do not. In addition, the claims of U.S. Patent No. 6,258,990 do not.

The references of Johnson et al.(5,730,859) and Fusco et al.(5,665,949) are cited for the general teaching that it is known that the amount of coke on a catalyst controls the activity/selectivity. See Johnson et al.(5,730,859), column 4, lines 59-67, column 5, lines 1-15 and column 6, lines 55-60 and Fusco et al.(5,665,949), column 1, lines 30-39.

The reference of Dean et al.(Re.33,728) illustrates that the addition of steam to a hydrocarbon feed functions as a diluent. See column 8, lines 24-29.

It would have been obvious to one of ordinary skill in the art at the time the invention was made desiring to control the activity/selectivity of the catalyst employed in the claims of U.S. Patent No. 6,258,990 to utilize a partially coked catalyst because the references of Johnson et al.(5,730,859) and Fusco et al.(5,665,949) illustrate that coke on a catalyst is known to control the activity/selectivity.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a diluent in the form of steam in the present claims because Dean et al.(Re.33,728) illustrates that steam is a known diluent.

Claims 10 and 19 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,258,990 in view of Johnson et al.(5,730,859) and/or Fusco et al.(5,665,949) and Dean et al.(Re. 33,728) in further view of Fenske et al.(3,893,905).

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Another difference is noted between the present claims and the claims of U.S. Patent 6,069,287. The claims of U.S. Patent 6,258,990 do not include a polymerization step.

The reference of Fenske et al.(6,258,990) is cited to illustrate that propylene is a known starting feed for the production of polypropylene. See column 2, lines 52-56.

It would have been obvious to one of ordinary skill in the art at the time the invention was made desiring polypropylene to separate the C3 products of U.S. Patent No. 6,258,990 as a feed for the production of polypropylene because the reference of Fenske et al.(6,258,990) illustrates that propylene is a known starting feed for the production of polypropylene. It is within the level of ordinary skill in the art to utilize a starting feed produced by any known process.

### ***Double Patenting***

Claims 1-9 and 11-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,118,035 in view of Johnson et al.(5,730,859) and/or Fusco et al.(5,665,949).

Both sets of claims are directed at the production of light olefins with overlapping components and process conditions.

A difference is noted between the claims of U.S. Patent No. 6,118,035. The present claims include limitations directed at pre-coking the catalyst whereas the claims of U.S. Patent No. 6,118,035 do not.

The references of Johnson et al.(5,730,859) and Fusco et al.(5,665,949)are cited for the general teaching that it is known that the amount of coke on a catalyst controls the



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activity/selectivity. See Johnson et al.(5,730,859), column 4, lines 59-67, column 5, lines 1-15 and column 6, lines 55-60 and Fusco et al.(5,665,949), column 1, lines 30-39.

It would have been obvious to one of ordinary skill in the art at the time the invention was made desiring to control the activity/selectivity of the catalyst employed in the claims of U.S. Patent No. 6,118,035 to utilize a partially coked catalyst because the references of Johnson et al.(5,730,859) and Fusco et al.(5,665,949) illustrate that coke on a catalyst is known to control the activity/selectivity.

Claims 10 and 19 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,118,035 in view of Johnson et al.(5,730,859) and/or Fusco et al.(5,665,949) in further view of Fenske et al.(3,893,905).

Another difference is noted between the present claims and the claims of U.S. Patent 6,069,287. The claims of U.S. Patent 6,118,035 do not include a polymerization step.

The reference of Fenske et al.(3,983,905) is cited to illustrate that propylene is a known starting feed for the production of polypropylene. See column 2, lines 52-56.

It would have been obvious to one of ordinary skill in the art at the time the invention was made desiring polypropylene to separate the C3 products of U.S. Patent No. 6,118,035 as a feed for the production of polypropylene because the reference of Fenske et al.(3,983,905) illustrates that propylene is a known starting feed for the production of polypropylene. It is within the level of ordinary skill in the art to utilize a starting feed produced by any known process.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadine Preisch whose telephone number is 703-305-2667. The examiner can normally be reached on Monday through Thursday from 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marian Knode can be reached on 703-308-4311. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3599 for regular communications and 703-305-5408 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0661.

N.P.

September 23, 2001

NP

**NADINE PREISCH**  
**ART UNIT 1764**

